considered to be in condition for allowance. Consideration and allowance of new independent claim 39 and dependent claim 40 are respectfully requested in view of the following remarks.

Applicant respectfully traverses the rejection of claims 1, 11, and 19 under 35 U.S.C. 112. Regarding the Examiner's view that the term "semiconductor unit" according to the present invention is defined as a "flip chip", please note that the semiconductor unit in a package of lead-on-chip configuration is not a flip chip. A flip chip is a chip with an active surface having bumps formed on the pads thereof, wherein each bump electrically and directly connects a metal contact on a connection surface of a chip carrier when the chip and the chip carrier are jointed (always with the active surface facing the connection surface). In contrast, a chip in a package of lead-on-chip configuration electrically connects chip carrier (usually lead frame) through bonding wires instead of bumps, therefore the chip in a package of lead-on-chip configuration according to the present invention is not a flip chip. Shown in Figs. 7, 8, and 15 of the present application are examples of lead-on-chip configuration. The second paragraph of page 4 of the present application emphasizes that the method provided by the present invention is suitable for packaging at least a semiconductor unit that, after connecting the chip carrier, has at least a surface from which the semiconductor unit may be etched. As can be seen from Figs. 7 and 8 of the present application, after a semiconductor unit 75 is electrically connected with carrier 71 via wires 76 to form a package of lead-on-chip configuration, the semiconductor unit 75 has a surface 73 from which semiconductor unit 75 may be etched. It deserves mention that the connection surfaces of a semiconductor unit and a carrier in a lead-on-chip configuration usually face the same direction, while those in a flip chip configuration always face each other (face opposite directions).

Regarding the rejection to claims 6 and 8 under 35 U.S.C. 103(a) as allegedly being unpatentable over the combination of Goruganthu et al (US Patent 6,069,366), Hudak et al (US Patent 5,656,552), and Bruce et al (US Patent 6,417,068), the Examiner admits that Goruganthu and Hudak fail to disclose using a fixture to shield at least part of semiconductor unit and carrier to prevent etching from affecting the quality of the semiconductor unit and carrier (first paragraph of page 6 of the Office Action). The Examiner's rejection to claims 6 and 8 is based on the grounds (second paragraph of page 6 of the Office Action) that Bruce discloses a method which is for milling the substrate of a semiconductor device and comprises a step of using an

under-fill material 28 to shield at least part of semiconductor unit and carrier to prevent the etching from affecting the quality of the semiconductor unit and carrier. The grounds are supposed by the Examiner to be supported by column 5, lines 40-42, and Fig. 5 in Bruce's disclosure.

However, the under-fill material 28 according to column 5, lines 40-42, and Fig. 5 in Bruce's disclosure is provided to encapsulate the bumps of a package of flip chip configuration no matter whether the package needs etching or not, while the fixture 26 (Figs. 4-6) according to the present invention is used only when a chip in a package of flip chip configuration is etched. In Bruce's disclosure, there is no indication the under-fill material 28 therein is related to preventing the etching from affecting the quality of the semiconductor unit and carrier. Column 5, lines 25-47, and Fig. 5 in Bruce's disclosure are merely for describing the structure of a package to which laser scribing is to be applied. For example, the pads 16, 18, or 24 according to Bruce's disclosure (lines 33-45 of col 5) are merely mentioned for describing the structure of a package to which laser scribing is applied according to the art of Bruce et al, they are not necessarily relevant to the art of Bruce et al. The under-fill material 28 mentioned in Bruce's disclosure (column 5, lines 40-42, and Fig. 5) also is merely for describing the structure of a package to which laser scribing is applied, it is not necessarily relevant to the art of Bruce et al., much less related to preventing the etching from affecting the quality of the semiconductor unit and carrier.

Several prior art patents show the popular use of under-fill material in a semiconductor package, including: U.S. patent No. 6,169,328, which mentions making use of under-fill material disposed between the chip and the supporting substrate in an attempt to reduce the stress caused by CTE (coefficient of thermal expansion) mismatch; U.S. patent No. 6,373,125, which mentions sealing a semiconductor chip from the surrounding atmosphere by underfill material so that chip is resistant to water vapor and other moisture in the air, particularly sealing only the active surface of a chip and the contact area of a carrier in a package of flip chip configuration; and U.S. patent No. 6,507,116, which mentions using under-fill material to balance the CTE mismatch between a substrate and a chip. These prior disclosures are not related to etching (neither to plasma etching nor to light beam etching), much less related to preventing etching from affecting the quality of the semiconductor unit and carrier. Thus, the under-fill material 28

in Bruce's disclosure is not relevant to etching, much less related to preventing the etching from affecting the quality of the semiconductor unit and carrier.

Also, the under-fill material 28 in Bruce's disclosure is a permanent part of a chip package. In contrast, fixture 26 according to the present invention is a tool only used temporarily for etching process.

The combination of Goruganthu et al., Hudak et al., and Bruce et al. does not teach all the features of the method defined by the new claim 39 of the present application. To applicant's best knowledge, no combination of any prior art has ever taught all the features of the method defined by new claim 39 of the present application. Accordingly, new independent claim 39 overcomes the obviousness rejection based on Goruganthu et al, Hudak et al, and Bruce et, is in condition for allowance and such action is respectfully requested.

Claim 40 depends on the new independent claim 39, is therefore in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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